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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,596	07/24/2003	William Patrick Tunney	11884/404601	7936
23838	7590	07/27/2005		
KENYON & KENYON 1500 K STREET NW SUITE 700 WASHINGTON, DC 20005			EXAMINER PATEL, SHEFALI D	
			ART UNIT 2621	PAPER NUMBER

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,596	TUNNEY, WILLIAM PATRICK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shefali D. Patel	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11 and 14-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>3/28/05</u> .                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Response to Amendment*

1. The amendment was received on April 12, 2005.
2. Claims 20-29 are newly added.
3. Claims 12 and 13 are allowed.
4. Claims 1-11 and 14-29 are pending in this application.
5. Attached is a summary for the phone Interview held on March 23, 2005.

### *Response to Arguments*

6. Applicant's arguments filed on April 12, 2005 (Remarks on pages 8-10) have been fully considered but they are not persuasive.

Applicant argue on page 8 stating that "Neither Gannaway nor Lousig-Nont disclose the claimed detection and designation", specifically detecting geometric shapes from capture data and designating to which paper form the shapes belong according to detection order of the shapes in a logical set as recited in claim 1, for example.

The examiner disagrees.

Gannaway discloses detecting geometric shapes (col. 5 lines 38-42) and designating the shapes according to where they belong (col. 6 lines 46-50). Gannaway also discloses a set in a memory, which is used to compare the detection value for designation purpose as disclosed at col. 5 lines 6-10, col. 6 lines 2-11 and 46-62. The group of questions and/or answers is stored in a memory as disclosed at col. 6 lines 62-68 which is used to compare with the answers that are provided by the test takers (or, the survey takers). Furthermore, Gannaway discloses two groups (left and right) defining various fields at col. 8 line 14 to col. 9 lines 1-12.

7. Applicant's arguments with regard to Yoshino's reference are not persuasive for the same reasons as above.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 4-6, 17, 20, 23, 25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gannaway et al. (hereinafter, "Gannaway") (US 4,773,860) in view of Lousig-Nont (US 4,358,279).

With regard to **claim 1** Gannaway discloses a method comprising: detecting geometric shapes formed by the writings (col. 5 lines 38-42, geometric shapes are triangle, equilateral triangle, etc.); comparing the detected shapes with a plurality of shapes stored in memory in associated with a logical set (col. 5 lines 6-13 and lines 47-52); upon matching, designating to which of the multiple paper forms the matched detected shapes belong according to detection order of the detected shapes in the logical set (col. 6 lines 46-50. Note, the logical set is stored in a memory and is used upon the examinee inputs the answers to the questions, col. 6 lines 2-11 and 62-68; col. 8 line 14 to col. 9 lines 1-12); retrieving from memory content printed on the designated paper form that is associated with the matched stored shapes (col. 6 lines 62-68); and storing the content to memory according to its designated paper form as writing made on that designated paper form (storing in the memory means disclosed at col. 5 lines 51-52). Gannaway discloses receiving data from an opaque, semi-flexible sheet made from an extrudable molded plastic as disclosed at col. 5 lines 34-36.

However, Gannaway does not expressly disclose receiving capture data from a capture device, the capture data representing writings made on multiple copies of a paper form. Lousig-Nont discloses this at col. 2 lines 16-29. Gannaway and Lousig-Nont are combinable because they are from the same field of endeavor, i.e., testing devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Lousig-Nont with Gannaway. The

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motivation for having multiple questionnaire forms (Lousig-Nont) rather than a single overlay form (Gannaway) is to provide, a tally sheet having a procedure for grading the symbols marked on the score sheet by assigning a predetermined numerical value as suggested by Lousig-Nont at col. 1 lines 51-60. Therefore, it would have been obvious to combine Lousig-Nont with Gannaway to obtain the invention as specified in claim 1.

With regard to **claim 4** Gannaway discloses the capture data is captures simultaneously with the writings made on the (multiple) paper forms (the electric contacts detect the answers (writings) as it is being written at col. 6 lines 46-68).

With regard to **claim 5** Gannaway discloses the stored shapes corresponding to answers to a question on the designated (paper) form (col. 5 lines 30-42).

With regard to **claim 6** Gannaway discloses the content that includes answers to a questionnaire (col. 5 lines 38-42).

**Claim 17** recites identical features as claim 1 except claim 17 is a system claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 17. Please note the system in Gannaway in Figure 1A.

**Claim 20** recites identical features as claim 1 except claim 20 is a broader version of claim 1. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 20.

**Claim 23** recites identical features as claim 1 except claim 23 is a broader version of claim 1. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 23.

With regard to **claim 25** Gannaway (as modified by Lousig-Nont) discloses all of the claimed subject matter as already discussed above in claim 1 and the arguments are not repeated herein, but are incorporated by reference. Claim 25 distinguishes from claim 1 only in that it recites a capture device comprising: an input device (Lousig-Nont discloses this at col. 2 lines 16-29), a form holder (Gannaway: Unit 20, Figure 1); and a processor (Gannaway: 304 in Figure 3; col. 10 line 66 to col. 11 lines 1-6).

With regard to **claim 29** Gannaway discloses determining which of the (multiple) paper forms the shapes belong according to the detection order of the detected shapes that belong to the same logical set (col. 6 lines 2-11 and 46-68).

10. Claims 2-3, 7, 9-11, 14-16, 18-19, 21-22, 24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gannaway in view of Lousig-Nont as applied to claims 1, 4-6, and 17 above, and further in view of Yoshino (US 6,618,504).

With regard to **claim 7**, Gannaway (as modified by Lousig-Nont) discloses all of the claimed subject matter as already discussed above in claim 1 and the arguments are not repeated herein, but are incorporated by reference. Claim 7 distinguishes from claim 1 only in that it recites receiving coordinates from a capture device; the set of coordinates representing shapes. Yoshino discloses this at col. 17 lines 13-18, col. 21 lines 37-61 and col. 22 lines 3-20. Yoshino also discloses detecting the shapes from the set of coordinates (detecting handwriting from the coordinates col. 17 lines 13-18, col. 21 lines 37-61 and col. 22 lines 3-20; converting is disclosed at col. 25 lines 35-56). Gannaway, Lousig-Nont and Yoshino are combinable because they are from the same field of endeavor, i.e., testing devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Yoshino with Lousig-Nont and Gannaway. The motivation for doing is to indicate the relative positions of the handwriting to determine the shape of the writing as suggested by Yoshino at col. 6 lines 53-67. Therefore, it would have been obvious to combine Yoshino with Lousig-Nont and Gannaway to obtain the invention as specified in claim 7.

With regard to **claim 2** Yoshino discloses a set of time ordered coordinates (x,y) of the writings on the forms (col. 17 lines 13-14, 27-28).

With regard to **claim 3** Yoshino discloses a set of vector coordinates (x,y,t) of the writings on the forms (col. 25 lines 28-34).

With regard to **claim 9** Yoshino discloses coordinates indicating when (x,y,t) and where (x,y) the shapes were made (col. 25 lines 28-34; col. 25 lines 28-34).

With regard to **claim 10** Gannaway as modified by Lousig-Nont discloses the (multiple) paper data forms are attached to the capture device, the forms including a plurality of figures, each figure having a unique shape and corresponding to a questionnaire answer as already discussed above in claim 1 and the arguments are not repeated herein, but are incorporated by reference. Please note that multiple pages with multiple figures of the questionnaire are disclosed in Lousig-Nont as seen in Figures 1-3.

With regard to **claim 11** Gannaway discloses filing in the figures as seen in Figure 1 with a probe 60.

With regard to **claim 14** Gannaway discloses each of the shapes made by tracing the perimeter of one of the figures (perimeter of the figures is being traced to determine whether it's a triangle shape or not at col. 5 lines 38-47).

With regard to **claim 15** Gannaway as modified by Lousig-Nont discloses retrieving from memory predefined shapes expected to be on the capture device; comparing the detected shapes to the predefined shapes; determining which of the predefined shapes match the detected shapes; determining on which paper form each of the detected shapes belongs based on the match; and storing the questionnaire answers corresponding to the determined predefined shapes on the determined paper forms as already discussed above in claim 1 and the arguments are not repeated herein, but are incorporated by reference. Please note that designating in claim 1 is same as determining on which page in claim 15.

With regard to **claim 16** Lousig-Nont discloses receiving identifications of the paper forms by identifying the pages 102 and 104, col. 2 lines 16-26.

**Claim 18** recites identical features as claim 9. Thus, arguments similar to that presented above for claim 9 is equally applicable to claim 18.

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With regard to **claim 19** Gannaway discloses sets of marks indicate the geometric shapes, col. 5 lines 30-47.

**Claim 21** recites identical features as claim 9 except claim 21 only recites identifying the times (i.e., when). Thus, arguments similar to that presented above for claim 9 is equally applicable to claim 21.

**Claim 22** recites identical features as claim 9 (i.e., where). Thus, arguments similar to that presented above for claim 9 is equally applicable to claim 22.

**Claim 24** recites identical features as claim 7 (converting is disclosed at col. 25 lines 35-56). Thus, arguments similar to that presented above for claim 7 is equally applicable to claim 24.

**Claim 26** recites identical features as claim 9. Thus, arguments similar to that presented above for claim 9 is equally applicable to claim 26.

With regard to **claim 27** Yoshino discloses differentiating between intended used contact and mistaken user contact at col. 27 lines 7-17.

With regard to **claim 28** Yoshino discloses cross marking on the geometric shapes (i.e., characters in this case) of mistaken user contact at col. 27 lines 17-26.

#### *Allowable Subject Matter*

11. Claims 12-13 are allowed.

The reasons for allowance are disclosed in an Office Action mailed on January 12, 2005 and the reasons are not repeated herein, but are incorporated by reference.

#### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



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US 6,091,852 – Method of Pattern Recognition and Method of Creating an N-Dimensional Object

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

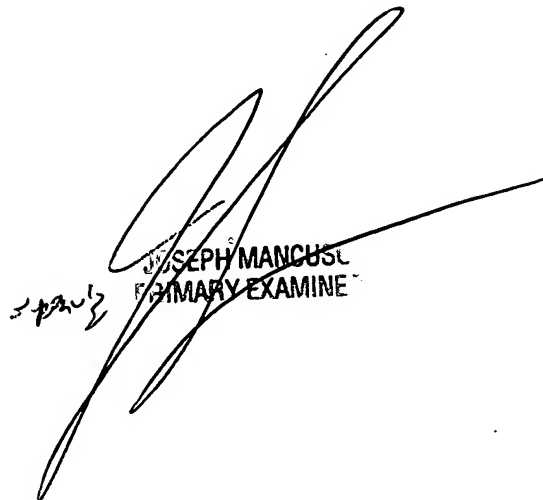
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shefali D Patel  
Examiner  
Art Unit 2621

July 13, 2005

  
JOSEPH MANCUSO  
PRIMARY EXAMINE